



The INEEL has one of the largest stockpiles of transuranic (plutonium-contaminated) waste in the world. Since the 1970s, the State of Idaho has been concerned that this waste could eventually contaminate the Snake River Plain Aquifer. DOE promised it would eventually remove this waste from the INEEL. In 1995, a court settlement formalized this promise by requiring DOE to remove all transuranic waste from Idaho by 2018.

Much of this waste requires treatment before it will be accepted for disposal at the Waste Isolation Pilot Plant in New Mexico. DOE contracted with BNFL, Inc. to construct a treatment facility, the Advanced Mixed Waste Treatment Project (AMWTP), at the INEEL to treat the waste so it will be accepted at WIPP, and DOE can meet its legal obligations to the State of Idaho.

After several years of technology and environmental reviews, the AMWTP changed direction after a high-profile group of Wyoming citizens rallied opposition to the facility's small incinerator. The controversy brewed as the state of Idaho was preparing to issue environmental permits, the last hurdle for the company to complete before construction could begin. The debate over the merits of the AMWTP, and its incinerator in particular, raged for months. DOE eventually reached a settlement with project opponents that allowed the rest of the facility to be built while a panel looked for alternatives to incineration.



Would emissions from the AMWTP harm Idaho crops? Would the *perception* that the facility was dangerous cause a loss in consumer confidence? Would pollution find its way over the Tetons to Jackson Hole or Grand Teton National Park? How would it compare to the natural radiation levels in the area? These were some of the questions raised about the AMWTP.

Broad issues of public policy are involved: How will we bear the risks from the collective benefit of our Cold War “victory”?

What is the AMWTP?

The Advanced Mixed Waste Treatment Project (AMWTP) is a treatment facility to prepare plutonium-contaminated waste for disposal at WIPP. The facility could also treat different types of mixed low-level waste.

The facility has different treatment lines for waste boxes and drums. Some waste will need pretreatment, which includes opening containers and characterizing, sizing, sorting and repackaging waste.

To decrease the volume of waste needing transportation and disposal at WIPP, the facility can *supercompact* some types of waste. Somewhat like trash compactors, this treatment compresses waste to reduce volume by as much as 80%.

The AMWTP's original design included a small incinerator to break down PCBs and organic cleaning solvents into safer compounds. However, the facility's incinerator is on hold while DOE evaluates alternative technologies.

Environmental protection

The AMWTP must handle waste in a way that meets regulations established to protect human health and the environment. These regulations require certain engineering controls, such as waste treatment standards, filtration and scrubbers.

Because it will treat hazardous waste, the facility must receive certain permits before beginning construction and operation. These permits establish emission limits for different chemical elements and compounds and require monitoring of emissions. The facility will also be subject to surprise on-site inspections, and fines if permit conditions are not met.

To ensure hazardous waste treatment facilities do not pose undue risk, DEQ and EPA conduct formal risk assessments before making permitting decisions.

Using models, the agencies calculate short-term and lifetime risks to all receptors for radionuclides, carcinogens and non-carcinogens.

Before DOE put the AMWTP's incinerator on hold, the agencies conducted a risk assessment for the entire facility. The agencies required several levels of conservatism to be sure operations protect public health and the environment. For example, agencies calculated risks at the location where the risks would be highest, at the southwest boundary of the INEEL, even though no one lives there. The agencies calculated risks to a hypothetical subsistence farmer and child who lived and raised all of their food at this location.

Even with these levels of conservatism, the modeling for the original AMWTP indicated the short-term and lifetime risks to all receptors from the facility were below regulatory standards.

The controversy

Public interest in the Department of Energy's draft 1998 Environmental Impact Statement for the project was comparatively mild—roughly 500 comments from 11 states. But public interest intensified in May of 1999, at the end of the comment period on the state Clean Air Act permit for the facility. People from the Jackson Hole, Wyoming area submitted comments expressing concern about the facility and circulated petitions opposing it. They also asked Idaho's Department of Environmental Quality to extend the comment period, which had already been extended twice. DEQ denied the request.

A Jackson-based group, Keep Yellowstone Nuclear Free, formed to oppose the incinerator and sued DOE in November, 1999 to stop facility construction. The Environmental Defense Institute, the Snake River Alliance Education Fund, the Sierra Club, and the Jackson Hole Conservation Alliance,

joined in the suit, alleging DOE's decision to proceed with the facility violated federal law. Information circulated by both supporters and opponents of the facility created considerable confusion.

Misinformation and confusion exacerbated fear and anger that already existed in the Jackson Hole area. The controversy ignited tempers in both Idaho and Wyoming, rumors were flying, and the debate became polarized. It seemed as if no one was truly listening to anyone else. But DOE eventually reached a truce with the groups that had filed suit to stop the facility's construction.

The agreement

DOE reached an agreement with the lawsuit plaintiffs to put the incinerator part of the facility on hold while a "Blue Ribbon" panel evaluated other ways to treat waste slated for incineration. The panel will make recommendations to DOE by the end of 2000.

In exchange, the plaintiffs dropped their legal challenge to the rest of the facility. In July 2000, DEQ approved environmental permits for the non-incinerator parts of the AMWTP, and BNFL began construction in August.

If DOE ultimately chooses to proceed with an incinerator, the agreement imposes a 3-month delay before resuming the permitting process to allow plaintiffs to renew their lawsuit.

The Blue-Ribbon panel

DOE selected Natural Resources Defense Council Attorney Ralph Cavanagh to chair the Blue-Ribbon panel. Although DOE did not ask the governors of Idaho or Wyoming to participate in agreement negotiations—in fact, Governor Kempthorne and other Idaho officials were blindsided by the front page story in the *Idaho Statesman*—each governor selected one panel member. The agreement also gave the plaintiffs one selection. Although Keep Yellowstone Nuclear Free opted not to make a selection in protest of the panel's composition, other plaintiffs chose a panel member. DOE selected 5 other panelists.

The panel met several times before making a recommendation to Secretary of Energy Bill Richardson. Members asked for input from the public, regulatory agencies, and industry regarding the suitability of alternatives to incineration. The panel also heard from the Army about its experience with incineration and evaluation of other technologies to eliminate threats from aging chemical weapon stockpiles.

The panel recommended several technologies to DOE for further evaluation over the next several years. No alternative technologies are available now. Incineration remains the only EPA-approved technology for treating the fraction of the plutonium-contaminated waste at the INEEL that contains polychlorinated biphenyls and certain other chemical compounds.

It's a mistake to think the controversy was just about the AMWTP. It was about risks and fears, failures to communicate and inability or unwillingness to listen. Broad issues of public policy are involved: How will we bear the risks from the collective benefit of our Cold War "victory"?

"I'm discouraged by headlines about who 'won' or 'lost' in the AMWTP debate," said Oversight Coordinator Kathleen Trever, "The only score that should matter is safely addressing the legacy of the Cold War. If we back down from that goal, we all lose. Until all of the people involved in an issue commit to communicating clearly, thinking critically, and working to understand the concerns and values of others, none of us are real winners. If we have to face this issue again without making that commitment, we could be right back where we started from, with polarized "sides" in an issue that needs our collective attention instead."

The controversy over the AMWTP may be over, for now, but the underlying questions are still there. If we don't find a way to intelligently discuss these issues and options, the toxic legacy of the cold war could harm more than our environment. It could poison our society.